QUEUE

INTELLECTUAL SOFTWARE

ADVENTURES IN SPACE

FOR APPLE

Queue, 5 Chapel Hill Drive, Fairfield, CT 06432

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Computers for Education

K-1 & T

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TEACHER'S MANUAL

PROGRAM PURPOSE

Adventures in Space is designed to teach very young children spatial relationships. The program employs animated graphics to instruct the student in the meanings of the terms up, down, in, out, left, right, above, below, behind, in front of, beside, between, around, within, near and far.

The programs were constructed to be used flexibly by the teacher or parent and the student. Some pupils can work through them independently while others will need to work either under the guidance of the teacher or directly with the teacher. Some pupils will proceed screen by screen through the material, while others may do selected modules only.

Generally the programs may be used for:

- -presentation of skills
- -review of skills
- -reference when difficulties arise
- -informal assessment of skills

These programs were designed to provide immediate feedback, positive reinforcement and non-punishing remediation. The programs are designed to be used independently, provide for student self-evaluation through scoring, and contribute to high time on task during instruction.

PEDAGOGICAL APPROACH

The introduction of important concepts is signaled by the use of musical notes. Students should be aware that when they hear the musical notes the program will then present a concept that they will need in order to master the material to be presented.

Intellectual Software employs multiple choice as a tutorial technique.

The student will be presented with a brief set of directions then be asked a question or series of questions based on the directions. There will be two to five choices labelled A-E. Answers are automatically accepted by the computer without the use of the RETURN key. Students should be instructed to use the RETURN key only after the computer responds to their answers. (The response stays on the screen until RETURN or any key is hit.) The automatic response feature makes it necessary for students to consider their answer before entering it on the computer. The computer is programmed to accept the letters A, B, C, D and E as student responses. If a student hits any other key the messsage PLEASE ANSWER WITH ONE OF THE CHOICES: A, B, C, D, E. appears, followed by the rectangle that is the cue to hit any key to continue. Many students forget to hit a key before trying again. If the student chooses the proper answer he or she will be told "correct" and a rectangle will appear to tell the student to hit any key. If the student chooses an incorrect answer he or she will receive immediate remediation in the form of an explanation of the problem.

An extremely high level of interactivity is maintained throughout the program. Branching to explanations after each wrong answer allows each student to proceed at his or her own pace.

Those who have mastered the concept receive no extra explanation but move quickly and effeciently to the next module. Those who require extra instruction, however, and so indicate by failing to choose the correct answer, receive immediate remediation in the form of an explanation of the problem at hand.

Students are never told "Wrong" or "Incorrect" or "Try Again." The student simply receives an explanation. Success is encouraged and emphasized. Failure is used only as an additional teaching opportunity, and no other emphasis is placed on failure.

At the end of each module, the student is told how many questions he attempted, how many he got right, and how many he got wrong. A percentage of answers correct is given. For disks without management this is the only time this information is available. Disks with management maintain a record of this information for up to ten students at a time. (If you have purchased disks without management, you may add management to your disks by returning them to Intellectual Software. The charge for adding management is $10.00 per disk.)

There are 10 programs (also referred to as modules) on the disk. The average student will complete a module in 15-20 minutes. It is recommended that each student work only one or two programs per sitting.

HOW TO OPERATE THE PROGRAMS

All Intellectual Software programs are menu-driven, and thus, require absolutely no technical knowledge of computers to operate. To run a program simply insert the disk into the disk drive of your Apple IIe or Apple II+ and turn the computer on using the switch on the left in back of the computer.

Once you have booted your Intellectual Software program, you will be given cues by the computer to which you should respond. You will be asked to type in your name. Then you will see a menu of module titles and codes to choose from. You should select the module you want to work on by typing the module code (for example L20). associated with that module.

Apple IIe users must keep CAPS LOCK down.

CLASSROOM MANAGEMENT

Intellectual Software's Classroom Management System allows teachers to view an individual student's progress, review groups of students' achievements, and produce hard copy of either.

The management is contained on the Intellectual Software disk and automatically enters students' names and scores. When a student enters his or her name at the beginning of a module, and the program does not have a file in management for that student, the program will ask if it is the first time the student has used the disk. If the student answers "yes," a new management file is opened. If the answer is "no," however, the program will request that the student enter his or her name exactly as entered the first time the disk was used. This will keep one student from taking up several spaces in the management because he or she has entered his or her name several different ways.

If the management has a file for that name, it will reopen the file and add the student's new scores. Thus, if you have several students with the same first name, they MUST enter both their first and last names so that management can distinguish between them.

If a student cannot remember how his or her name was entered originally, the teacher can check in the management. However, it is important that students do not see how access to the records is gained.

Students will receive a score table at the end of each module they work on (regardless of whether they complete all the items in the module or they merely ESCAPE to end). This table tells the number of items attempted, the number correct, and the percentage correct. It contains information only about the work they just completed. This is the only contact students will have with the management system.

If a student ESCAPES out of a module before he or she has finished it, the next time that student signs onto the disk, the computer will

suggest the student begin with that module. This suggestion can be overridden merely by choosing another module. If the student does reenter the unfinished module, however, the program will skip over the work already done, and begin where the student left off.

ACCESS TO and INTERPRETATION of MANAGEMENT

Apple II+ teachers load management to screen by depressing the CONTROL, SHIFT and M keys, all at the same time . Apple IIe users must depress the CONTROL and] (Right Bracket) at the same time .

A message will appear on the screen: "LOADING MANAGEMENT" and the classroom management menu will follow. The choices on the menu are as follows:

1. All student records to screen (depress shift and 1 for hard copy)
2. Individual records to screen (depress shift and 2 for hard copy)
3. Erase all student records
4. Customize system
5. Return to tutor

Choice one and choice two show the same scoring tables for each student. The only difference is that two allows you to pick a specific student from a list displayed and one lists all the student records sequentially. To get hard copy, merely depress Shift and 1 or Shift and 2 instead of 1 or 2. The program will ask you if your printer is ready.

The table that displays students' scores looks like this:

1. TED BROWN

PERCENT CORRECT BY TOPIC

MODULE: # ITEMS	-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-
L45:19				53				
L15:17	65							
L35:14			29					
TOPICS NEEDING INSTRUCTION:	*	*	*	*	*			

PRESS RETURN KEY TO PROCEED

Ted is the first student to have used the disk. You can review his record by using choice 1: review all student records (he will come up first), or you can pick him off the menu of students displayed if you pick choice 2.

The column MODULE: # ITEMS is vertical. Below that heading is listed the module code numbers that Ted worked on IN THE ORDER HE WORKED ON THEM, with the top being the first one he did and the bottom being the last. Right next to the module number, and separated from it with a colon, is the number of questions that were attempted in that module.

To the right of the code and the number attempted is the percentage correct the student got in that module. This number will be under the column (1-8) that corresponds with the first number in the code. Therefore, when Ted worked on either L10 or L15, his score would be under column 1 of the PERCENTAGE RIGHT BY TOPIC part of the chart. His scores for modules L30 and 35 would be under column 3. Scores for L45 would be under column 4, etc.

This table allows you to see easily both the order in which Ted worked on the modules and the number of questions he attempted in each (the column to the far left); the scores he got (the percentage to the right of the module code), and how his scores change as he works on through the disk. This final information can be seen by looking at the scores in column 1 as opposed to those in 2, 2 as opposed to 3, etc. Regardless of the order he worked on the modules, they will be grouped under the topic numbers (1-8) in numerical order (L10 - L55).

The final note TOPICS NEEDING INSTRUCTION merely indicates the scope of module codes on the disk. Most Intellectual Software programs use the following module codes: L10, L15, L20, L25, L30, L35, L40, L45, L50, L55 and, therefore, there will usually be asterisks under columns 1 through 5. (If there are only five modules on a disk, L10-L30, there will be asterisks under columns 1 through 3.) This allows teachers to check if a student has worked in all areas of the disk without going back and consulting the module codes on the introductory menu.

Choice 3 on the management menu erases all student records from management. Since the print option executes so quickly, it is advisable and easy to save records on hard copy before erasing them.

Management will only hold 10 student files. Once it is full the disk is unusable by any student who does not have one of the 10 files UNTIL THE MANAGEMENT HAS BEEN CLEARED. The eleventh student to try to use the disk will be met with a message "DISK FULL." Teachers should review student records daily (less frequently if the population using the disk is limited or if the amount the disk is used each day is small) and either record or print out management data. Records should then be cleared.

Choice 4 on the menu will be applicable to new Intellectual Software programs with diagnostic modules planned for production in the near future.

Choice 5 simply returns the user to the tutorial part of the disk.

SUPPORT

If you have any questions or problems, call Intellectual Software at 1-800-232-2224 (in Connecticut, Hawaii, Alaska and Canada 203-335-0906). If any disk is damaged, mail the damaged disk plus $3.00 to Intellectual Software at 5 Chapel Hill Drive, Fairfield, CT 06432, for a prompt replacement.

Never expose any computer software to excess heat or cold. Do not leave your software near a strong magnetic field such as might be produced by an electric appliance, stereo, or speaker magnet. Always place your software in its sleeve when you are not using it. This will protect it from dust and fingerprints. Finally, never touch the exposed parts of the disk which are visible through the holes in the disk cover.

MODULE CODES AND TITLES

The disk is menu-driven, with a choice of modules. The specific modules which can be independently accessed on this disk are:

Module Code	Title
L10	Up and Down
L15	In and Out
L20	Left and Right
L25	Review
L30	Above and Below
L35	Behind/In Front Of
L40	Beside and Between
L45	Around and Within
L50	Near and Far
L55	Final Review

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